

CLAIMS

1. A method for separating a lump piece of rosette plants, comprising the steps of:

- gripping a rosette plant and positioning it parallel to a longitudinal axis of an elongated holder, which comprises a longitudinal opening at least 5 along the longitudinal axis;

- introducing a part of the lump piece into the holder via the mentioned longitudinal opening;

- cutting off the lump piece along a cutting plane parallel to the longitudinal axis, while closing the longitudinal opening, such that the 10 introduced part of the lump piece is enclosed in the holder; and

- removing the enclosed cut-off part of the lump piece from the holder.

2. A method according to claim 1, characterized in that the method comprises the further step of cutting off a cut-off part of the rosette plant 15 enclosed in the holder along a second cutting plane.

3. A method according to any one of the preceding claims, characterized in that the removal from the holder takes place while retaining orientation.

20 4. A method according to any one of the preceding claims, characterized in that the cutting off of the lump piece is carried out by the rotation of two half-round sections engaging each other along a rotation axis, during which the sections cuttingly glide along each other, such that after rotation the sections form a cylinder in which the part of the lump piece is received.

5. A method according to any one of the preceding claims, characterized in that the method comprises the further step of blowing out the cut-off part of the lump piece enclosed in the holder by means of compressed air.

5 6. An apparatus for separating a lump piece of rosette plants, comprising:

- an elongated holder which comprises a longitudinal opening at least along the longitudinal axis; and
- a first cutting element for cutting off a lump piece along a cutting plane parallel to the longitudinal axis, while closing the longitudinal opening, such that an introduced part of the lump piece is enclosed in the holder.

10 7. An apparatus according to claim 6, characterized in that the

15 apparatus comprises a transverse opening which is oriented transversely to the longitudinal axis.

20 8. An apparatus according to claim 7, characterized in that the apparatus comprises a second cutting element for cutting off a part of the rosette plant enclosed in the holder along a second cutting plane transversely to the longitudinal axis, while closing the transverse opening.

25 9. An apparatus according to any one of claims 6-8, characterized in that the holder has such a cross-section that in enclosed condition the cut-off part is clampingly enclosed, so that upon removal a cut-off part retains its orientation.

10. An apparatus according to any one of the preceding claims 6-9,

characterized in that the elongated holder comprises a first half-round

30 section, and that the cutting element comprises a second half-round section,

which first and second sections engage each other along a rotation axis and, upon rotation, carry out a cutting movement, such that after rotation the sections form a cylinder in which a part of a cut-off lump piece can be received.

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11. An apparatus according to claim 10, characterized in that the sections are arranged to carry out an axial movement relative to each other during the rotation.

10 12. An apparatus according to any one of the preceding claims 6-11, characterized in that the apparatus comprises an expelling element for removing the enclosed cut-off part of the lump piece from the holder.

15 13. An apparatus according to claim 12, characterized in that the expelling element is arranged to expel the cut-off part along the longitudinal axis of the holder.

20 14. An apparatus according to claim 13, characterized in that the expelling element comprises an outflow longitudinal opening oriented along the longitudinal axis of the holder for blowing out compressed air.

25 15. An apparatus according to claim 14, characterized in that the outflow longitudinal opening is provided in the second cutting element, so that the cutting element, after having carried out a cutting movement, positions the outflow longitudinal opening such that the cut-off part can be blown out by means of compressed air.

30 16. An apparatus according to any one of the preceding claims, characterized in that the second cutting element is connected with a pair of parallel-arranged leaf springs.

17. An automated apparatus, comprising:

- image recognition means for identifying a rosette plant to be multiplied;

5 - a gripper for gripping the rosette plant and positioning it;

- an apparatus according to any one of claims 6-15, which cuts off and encloses the plant;

- transport and manipulation means for transporting and manipulating the growing medium, into which the cut-off cutting is

10 introduced; and

- control means for controlling the gripper, the apparatus according to any one of claims 6-15, and the transport and manipulation means under control of the image recognition means.